NATIONAL AERONAUTICS AND SPACE ADMINISTRATION Goddard Space Flight Center Explore. Discover. Understand Volume 1 Issue 2



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Astro-E2 Launches from Japan

By Susan Hendrix

Congratulations to the Astro-E2 team here at Goddard on the successful launch of the Astro-E2 spacecraft from the Uchinoura Space Center in Japan on June 10 at 12:30 p.m. local time (July 9 at 11:30 p.m. EDT).

During a press conference held at the launch site, the project manager, Professor Inoue announced the new name of the mission, Suzaku - "the vermilion bird of the south." Suzaku is a red sparrow-like bird in Chinese mythology, which guards us from evils and gives us good fortune. This name fits in with the tradition of Japanese X-ray astronomy satellites, which are often named after birds.

Equipment on board Astro-E2 included five X-Ray Telescopes (XRTs), a high-resolution X-Ray Spectrometer (XRS), which was developed jointly by Goddard and the ISAS; four X-Ray Imaging Spectrometers (XIS); and a Hard X-Ray Detector (HXD) which allow scientists to study simultaneously cosmic X-Ray sources.



Goddard Engineers work on the X-Ray Spectrometer, which flew on the Japanese Astro-E2 spacecraft. The instrument will take high-resolution measurements of celestial objects in the "soft" X-ray range.

Scientists will use the XRS to measure heat created by the individual X-ray photons, or light particles, it collects. This new technique will enable scientists to measure higher X-ray energies with a precision that is about 10 times greater than previously developed X-ray sensors. "If we know the precise energy that these light particles carry, we can infer new information about their origins," said principal investigator Dr. Richard Kelley of Goddard.

The Suzaku Guest Observer Facility, located at Goddard, will enable U.S. astronomers to make the best use of the mission science. First light is expected in about three weeks. "Suzaku will fill a gap in our understanding of the X-ray universe," said Kelley. Suzaku complements NASA's Chandra X-Ray Observatory and the European Space Agency's XMM-Newton mission.

For more information, visit:

http://www.nasa.gov/astro-e2
http://suzaku.gsfc.nasa.gov/docs/astroe/astroegof.html

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Cover: Astro-E2 launches from Southern Japan Photo courtesy of Dr. F. Scott Porter NASA/GSFC

GoddardView Info

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Managing Editor Trusilla Steele

Editor Alana Little

Deadlines: News items and brief announcements for publication in the Goddard View must be received by noon of the 1st and 3rd Wednesday of the month. You may submit contributions to the editor via e-mail at alittle@pop100.gsfc.nasa.gov. Ideas for new stories are welcome but will be published as space allows. All submissions are subject to editing.

CSI Goddard

By Bill Steigerwald

Ok, here's what we know so far: At 1:52 a.m. EDT on July 4, an 816-pound bullet the size of a coffee table hit the victim at 23,000 miles per hour. It penetrated deep into the victim's porous outer surface before vaporizing with the force of five tons of dynamite. The victim's insides splattered more than a thousand miles into space in front of a worldwide audience of astronomers who just couldn't wait to get a closer look. This is Comet Splatter Investigation (CSI): Goddard.

The "victim" is comet Tempel 1 and the "bullet" was the impactor spacecraft on NASA's Deep Impact mission. Since comets are leftover bits from the formation of the solar system, a team of rogue astronomers at the University of Maryland and NASA's Jet Propulsion Laboratory decided to rough them up a bit, exposing their guts to learn more about our origins. Like spectators to a contract hit, scientists at Goddard coolly kept their distance, letting the Deep Impact team do the dirty work. Then they zoomed in with other spacecraft and observatories to study the gory details.

Goddard's Submillimeter Wave Astronomy Satellite (SWAS) team will have to be charged as an accessory. Project Manager Dr. Jim Watzin practically confessed when he said, "We were thrilled to see that the venerable SWAS spacecraft could participate in this exciting investigation. It's a tribute to the development team that this observatory, having been in on-orbit hibernation for 11 months, could so quickly be recalled and targeted to make these observations. Built at GSFC in the late eighties,

this bus has long outlived its mission design life, and proven itself once again to be the flagship of the original Small Explorer fleet!"

I sweet-talked the Principal Investigator, a Dr. Gary Melnick at the Harvard-Smithsonian Center for Astrophysics, and got him to spill a bit more. "Preliminary results indicate that the water output from Tempel 1 was about 550 pounds per second after the impact. This water output level is about the same as before the impact — there was no gusher. We need to further analyze our data and compare it to other observers, but it helps narrow down the possibilities. We can now focus on models of comet interiors that predicted only a modest increase in water output after impact."

Rumor has it that Goddard's Dr. Michael Mumma was also involved - something about observations from a Keck telescope on top of a volcano in Hawaii. I leaned on him a little and learned that the victim wasn't just an innocent bag of water and dust. The NIRSPEC infrared spectrometer attached to Keck had spied ethane (C2H6), methanol (CH3OH), and hydrogen cyanide (HCN) -- a highly toxic respiratory inhibitor -- in its guts.

Maybe our victim wasn't so helpless after all. In fact, the heavyweight Tempel 1 shrugged off the bullet, changing its speed by less than a fraction of an inch per hour.

For more information visit: http://www.nasa.gov/deepimpact



This spectacular image of comet Tempel 1 was taken 67 seconds after it obliterated Deep Impact's impactor spacecraft. The image was taken by the high-resolution camera on the mission's flyby craft.

Door O oto do

One Night in a Field

By Rachel Weintraub

Fifty years ago, scientists Bernard Burke and Kenneth Franklin mistook radio signals from Jupiter for a Maryland farmhand driving home after a late date. It was an easy mistake to make back in 1955 as they set out to map the northern sky using a radio astronomy array in the middle of a rural 96-acre field about 20 miles northwest of Washington, D.C. Before that fateful night, astronomers had never picked up radio signals from any other planet besides Earth.

Testing the array and moving in a southern direction, the two detected bursts of interference. After analyzing the data, they realized that the interference occurred about four minutes earlier each night over several months. Comparing this with other celestial objects moving across the sky, they realized that they had actually been listening to Jupiter. To get a better idea of what they were hearing, Burke and Franklin

making it the only planet scientists can study from the ground in radio range. By studying Jupiter and its magnetic fields, we also made discoveries about the Earth and Earth's environment," said Dr. Jim Thieman of the NASA Goddard Space Flight Center.

When Burke and Franklin realized the planets emitted radio waves, the field of radio astronomy was about 20 years old and primarily studied the composition, structure, and motion of stars, galaxies, and comets. In fact, because radio astronomy has advantages that other forms don't -- namely that it's unaffected by sunlight, clouds, and rain -- it's still an important way of making observations.

Beside various arrays scattered around the world like the Very Large Array (VLA) in New Mexico, which is roughly one and a half times the size



Sunset over the VLA

compared their new data with what scientists already knew about Jupiter. They realized that the radio bursts matched up with the rotation rate of Jupiter. Scientists had started to understand Jupiter's rotation rate by watching the cloud patterns move across the planet. By listening to the radio bursts, they were able to improve on that information, determining that the planet rotates once in about 10 hours -- more than twice as fast as Earth.

So what does Jupiter sound like? It actually produces a wide range of bursts with different sounds. The most common, called L-bursts, last from a few tenths of a second to several seconds and sound like ocean waves breaking up on a beach. The shorter bursts, known as S-bursts, last a few thousandths to a few hundredths of a second and sound more like popcorn popping or like a handful of pebbles thrown onto a tin roof. Both the University of Florida and the Windward Community College in Hawaii put audible versions online. Nearly all of the planets in our solar system have magnetic fields but Jupiter's is much stronger and closer.

of Washington, DC, spacecraft also carry radio astronomy experiments. The Voyager probes studied four planets and had a radio instrument, as does Cassini, currently studying Saturn and its moons. "They're the children of this discovery," said Dr. Leonard Garcia, a radio astronomer at NASA Goddard Space Flight Center.

To commemorate the discovery, the Maryland Historical Trust placed a roadside marker along River Road near the former Seneca Observatory in April. It reads: "In 1955 scientists Bernard Burke and Kenneth Franklin from the Carnegie Institution of Washington accidentally discovered naturally-generated radio waves from Jupiter using a 96-acre antenna array. This discovery led to greater understanding of planetary magnetic fields and plasmas and opened a new window in our exploration of the solar system."

For the complete article, please visit: http://www.nasa.gov/vision/ universe/solarsystem/radio jupiter.html

Swift

Swift has been in orbit for 7 months and is detecting gamma-ray bursts at a rate of about 2 per week. The rapid and autonomous slew capabilities of the observatory have led to a new understanding of these cosmic



New NASA Satellite, Swift to Study Black Hole Birth and Gamma Ray Bursts

explosions. Swift made a major discovery in May with the first images of the mysterious "short" category of burst. The location of the flash near a giant elliptical galaxy supported the idea that short bursts are caused by the violent birth of a black hole when two orbiting neutron stars coalesce.

GPM

GPM-The Global Precipitation Measurement (GPM) mission is NASA's flagship mission for understanding the Earth's water cycle in the coming decade. GPM builds on the success of the Tropical Rainfall Measuring Mission (TRMM) and will provide more accurate, frequent (3-hourly), global, high spatial resolution, and measurements of precipitation. GPM will also provide improved representation of the physics and energetics associated with precipitation.



mage Credit: NASA

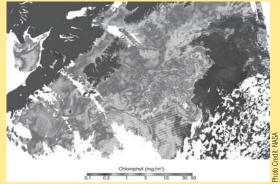
An illustration of GPM Core Spacecraft.

The GPM Mission is a partnership between NASA and the Japanese Aerospace Exploration Agency (JAXA) with JAXA providing the dual frequency precipitation radar and the launch of the core spacecraft and NASA providing the core spacecraft, microwave radiometer, one constellation spacecraft equipped with a microwave radiometer and the launch of the constellation spacecraft.

The GPM mission is being managed at NASA Goddard Space Flight Center. The target launch readiness date is late 2010.

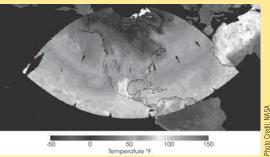
AQUA

AQUA-The Aqua spacecraft launched on May 4, 2002, and has been sending back valuable data about the Earth/atmosphere system. Aqua carries a sounding package consisting of the Atmospheric Infrared Sounder (AIRS), an Advanced Microwave Sounding Unit (AMSU), and the Humidity Sounder for Brazil (HSB), plus a Moderate Resolution Imaging Spectroradiometer (MODIS), an Advanced Microwave Scanning Radiometer for the Earth Observing System (AMSR-E), and two Clouds and the Earth's Radiant Energy System (CERES) instruments. The spacecraft, AMSU, and MODIS were provided by Goddard.



The MODIS sensor flying aboard NASA's Aqua satellite captured this image of a phytoplankton bloom along a weak sea surface temperature front in the Gulf of Alaska on April 11, 2005.

Hundreds of scientists, many at Goddard, are analyzing the Aqua data to examine water around the globe in its liquid, gaseous, and solid forms, plus atmosphere, land, and ocean temperatures, land and ocean vegetation, radiative energy fluxes, aerosols, atmospheric trace gases, and many interactions amongst the different components of the climate system. In addition, the Aqua data are being used by the U.S. National Oceanic and Atmospheric Administration (NOAA), the European Centre for Medium Range Weather Forecasting (ECMWF), and the Japan Meteorological Agency (JMA) for weather forecasting and by a variety of other near-real-time users for a wide range of



AIRS observations of "skin temperature" in degrees Fahrenheit at the Earth's surface

applications. These applications include use of MODIS fire data by the U.S. Forest Service in fighting forest fires, use of MODIS dust data by the U.S. military in tracking dust storms in Iraq and its vicinity, and use of the AMSR-E sea surface temperature data by the Japan Fisheries Information Service Center to assist fishermen in locating prime fisheries.

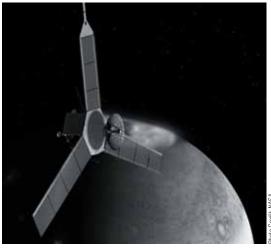
Juno to Spy on King of Planets

By Ronald Toland

In Roman mythology, Juno was the queen of the gods. Wedded to Jupiter, mightiest of Roman deities, Juno watched over women in childbirth and witnessed marriages. June, the month named for her, is considered a lucky one for weddings.

But Juno's own marriage was far from perfect. For Jupiter had a wayward eye, and a known admiration for the daughters of men. Ever jealous, Juno had to keep a close watch on her husband to keep his attentions focused on her.

NASA's newest mission to Jupiter, announced June 1, is named for the Roman goddess. Like the deity, Juno will stay close to Jupiter by flying a polar orbit around the planet, giving us our first in-depth study of the gas giant. By mapping Jupiter's magnetic and gravitational fields, Juno will settle lingering questions over the origins and internal structure of the largest planet in the solar system.



Juno in orbit remains close to Jupiter

"The history of our solar system is recorded in the formation of Jupiter," says Dr. Connerney from Code 695, who serves as the Deputy Principal Investigator for Juno. "By looking deep within Jupiter, Juno looks back in time, to the birth of our solar system. We will learn how planets formed in orbit about our sun, and gain an understanding of the formation of extrasolar planets, as well."

Juno has three main instruments to probe Jupiter's mysteries. A microwave radiometer will peek into Jupiter's atmosphere, mapping the distribution of winds, gases, and temperatures down to five times the depth reached by the Galileo probe. A second instrument will use telemetry data from the spacecraft to map out Jupiter's gravitational field. Changes in Juno's orbit caused by slight variations in Jupiter's gravitational field will show up as shifts in the radio frequency Juno uses to communicate with the Earth. By tracking these frequency shifts scientists will build up a map of Jupiter's gravitational field.

Juno's third instrument package is a series of magnetometers located along a long arm, or boom, sticking out from the end of one of Juno's solar panels, about 12m (36ft) from the main body of the spacecraft. Juno will use both scalar and vector magnetometers to measure Jupiter's strong magnetic field. Vector magnetometers use the current created by a changing magnetic field passing through a coil of wire to measure both the strength and direction of the local magnetic field. Scalar magnetometers use the effect of magnetic fields on the atoms of a gas to measure just the strength of the magnetic field.

Why use both? "While vector magnetometers are very accurate instruments, they need to be calibrated on a regular basis to achieve Juno's extremely precise measurement requirements," says Dr. Mario Acuña of Code 695, who has built magnetometers for such projects as Voyagers 1 and 2, Mars Global Surveyor, and Lunar Prospector, and will provide the vector magnetometers for Juno. "Since scalar magnetometers use reliable atomic transitions for their measurements, we can use them for in-field calibrations of the vector magnetometers."

Together, this trio of instruments—microwave, gravity, and magnetic experiments—will fill in our picture of Jupiter. Does Jupiter have a rocky core? How large is it? What is it made of? What gases exist in Jupiter's atmosphere at pressures 100 times greater than that at sea level on Earth? What is the source of Jupiter's magnetic field? Juno will help us answer these questions about the largest planet in our solar system. In turn, knowing more about this local gas giant will tell us more about the gas giants being discovered around other stars.

An experienced hand at exploring planetary magnetic fields, Dr. Connerney is excited to see Juno go forward. "Jupiter is unique because the generator of Jupiter's magnetic field occupies a large fraction of its volume. Juno, by flying a polar orbit, gets us closer to a planetary dynamo than we could get elsewhere," he says.

For more accurate magnetic field measurements, Juno will have a series of star trackers placed on the magnetometer boom. Normally, scientists must rely on a pre-launch alignment of boom and spacecraft to tell them where the sensors on the boom are located in space. With the star trackers placed out next to the sensors, the position and orientation of the sensors can be directly related to the position of background stars. Better knowledge of sensor alignment means more accurate measurements, and a better understanding of Jupiter's magnetic field.

Juno is scheduled for launch in 2009, arriving at Jupiter in 2014. The Principal Investigator for Juno is Dr. Scott Bolton, of the Southwest Research Institute. Lockheed Martin Space Systems will provide the spacecraft, while the NASA/Jet Propulsion Laboratory will perform mission project management.

2005 Goddard Day















Thanks to all those who participated... See you next year!

New Canadian Stamps

By Cynthia O'Carroll

On June 13, Canada issued postage stamps commemorating the International Search and Rescue Program. These stamps show various types of rescues that are possible using the instruments from the international Search and Rescue Satellite-Aided Tracking System (COSPAS-SARSAT). This system was developed in the 1970's based on NASA technology.

SARSAT instruments are flown on-board NOAA's Polar-orbiting Observational Satellites (POES) and the Geostationary Operational Environmental Satellites (GOES).

NASA Goddard Space Flight Center procures and manages the development and launch of these satellites for NOAA on a cost-reimbursable basis. Canada provides the Search Rescue Repeater and France provides the Search and Rescue Processor that complete the system.



The SARSAT system is used to detect and locate mariners, aviators and people in distress in remote regions worldwide. Over 5,004 lives have been saved in the United States alone, and more than 18,000 worldwide since SARSAT was established in 1982. On average, there are 203 U.S. rescues each year and since January 2005, the SARSAT system has rescued 87 people.

The SARSAT instruments are operating successfully on-board the recently launched NOAA-18 satellite. Similar instruments will also be on-board the GOES-N satellite to be launched later this summer.

For more information about SARSAT system, visit:

http://goespoes.gsfc.nasa.gov http://searchandrescue.gsfc.nasa.gov/ http://www.sarsat.noaa.gov/

ProposalOpportunities

NASA Research Announcements (NRA)

Discovery (Pending Release)

LWSRBSP (Pending Release)

ESSP (Pending Release)

For more information please visit https://nspires.nasaprs.com

Research Opportunities in Space and Earth Science (ROSES)

NASA Energy and Water Cycle Study

NOI: 8/18/2005

Proposal Due Date: 10/5/2005

Land Cover/Land Use Change

Proposal Due Date: 8/1/2005 (Step 2)

Remote Sensing Science for Carbon and Climate

Proposal Due Date: 8/3/2005

Astrobiology: Exobiology and Evolutionary Biology

Proposal Due Date: 8/5/2005

Planetary Protection Research

Proposal Due Date: 8/5/2005

Mars Data Analysis

Proposal Due Date: 8/12/2005

New Investigator Program in Earth-Sun System Science

Proposal Due Date: 8/31/2005

2001 Mars Odyssey participating Scientists

Proposal Due Date: 9/1/2005

Living with a Star/CEDAR Collaborative Studies with C/NOFS

Proposal Due Date: 9/9/2005

Terrestrial Ecology and Biodiversity

Proposal Due Date: 9/12/02005

FUSE Guest Instigator/Cycle 7

NOI: 9/16/2005

Proposal Due Date: 9/16/2005

Planetary Instrument Definition and Development

Proposal Due Date: 9/16/2005

Presidential Rank Award Winners

Edited by Debbie Jensen and Alana Little

Each year, the President honors a group of career members from the Senior Executive Service (SES), Senior Level (SL) and Scientific and Technical (ST) corps who are selected for their outstanding leadership accomplishments and service over an extended period of time in the Federal Government. The 2004 Presidential Rank Award recipients were recognized by NASA Headquarters for their 2003 accomplishments.

These senior executives and senior professionals are outstanding leaders, who consistently demonstrate strength, integrity, industry and a relentless commitment to public service. Through their personal conduct and results-oriented leadership, they have earned and kept a high degree of public confidence and trust. Senior executives and senior professionals from across the Government are nominated by their agency heads, evaluated by citizen panels and approved by the President.

There are two categories of rank awards, Meritorious and Distinguished, with Distinguished being the highest honor that can be bestowed by the President. In 2004, Joanne Simpson was the Goddard Space Flight Center recipient bestowed the highest honor of Distinguished Senior Professional as a member of the ST core. The award recipients' 2003 accomplishments follow:

John Campbell (SES award recipient) is the Director of Suborbital and Special Orbital Projects and is responsible for NASA's worldwide suborbital Space Science sounding rocket and scientific balloon programs and many Earth Science airborne programs. He is also responsible for special orbital projects – the Space Shuttle Small Payload Projects and the International Space Station Research Program Office. He is the senior manager at Goddard's Wallops Flight Facility in Virginia.



Richard Day (SES award recipient) is known throughout the Center and NASA as the GSFC Systems Management Office (SMO) Director, directly assisting the center director and deputy center director, and working Agency wide on program management policy and improvement initiatives. Day leads an elite

team of 25 predominantly senior-level civil servants to provide independent assessments of the ability of GSFC programs to achieve spectacular Earth and space science mission objectives. Day is a member of the General Management Council, Program Management Council, and New Business Committee.

Wentworth Denoon (SES award recipient), now retired, became the director of Safety and Mission Assurance (SMA) in September 2001. As director, he was responsible for the systems safety and mission assurance function at GSFC encompassing designing, building and operating spacecraft, spacecraft instruments and other aerospace products.



Norden Huang (ST award recipient), is the chief scientist for oceanography in the Earth Science Directorate at GSFC and an internationally recognized authority on sea-surface physics. In addition, he serves as the director of the Goddard Institute for Data Analysis, and is a Goddard Senior Fellow. He is the in-

ventor of the Hilbert-Huang Transform (HHT), a revolutionary method that generalized the Fourier transform that can reveal the true physical meaning of any data from non-linear and non-stationary processes.



Samuel Moseley (ST award recipient) is a senior astrophysicist at GSFC, and the principal investigator of the Microshutter Array development for the James Webb Space Telescope (JWST), principal investigator for the Submillimiter and Far infrared Experiment (SAFIRE) instrument for the Stratospheric Observatory

for Infrared Astronomy (SOFIA), co-investigator on the High Resolution Airborne Widefield Camera (HAWC) instrument for SOFIA, the Infrared Array Camera (IRAC) instrument on the Space Infrared Telescope Facility (SIRTF), the X-ray Spectrometer (XRS) instrument on Astro-E2, and is a world leader in the development of thermal detectors for infrared detection and X-ray spectroscopy.



Joanne Simpson (ST award recipient) was the chief scientist for meteorology in the Earth Sciences Directorate at Goddard and a Goddard Senior Fellow before retiring. Because of work she has done, significant progress has been made towards understanding, and predicting the formation and intensification of hurricanes.



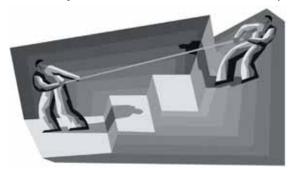
Nicholas White (SES award recipient), as the Chief of the Laboratory for High Energy Astrophysics (LHEA) at GSFC. The experimental and theoretical research in the LHEA is based on satellites, balloons, rockets, ground-based observations, laboratory studies and theoretical investigations with the study of high energy

processes throughout the Universe as the primary research area. These studies utilize observations in X-rays, Gamma-rays, Cosmic rays and Gravitational Waves.

A New Approach for Resolving Workplace Issues

By Elly Cleaver

Dr. Pat Heim, CEO of The Heim Group, a consulting firm which provides management and organizational development workshops said "the day we no longer experience conflict will be the day we leave this planet!" Conflict is a part of life, occurring in our personal lives and even at work and we must invent creative ways of resolving it. Disputes often go unresolved for several reasons: the issue just seems too difficult to fix, raising the issue is uncomfortable, or the resolution process seems to take too long. We all know that when issues remain unresolved, they



often worsen. To help improve this situation, a new approach for managing and resolving workplace conflict was recently introduced to GSFC civil servants. The new approach includes the use of Alternative Dispute Resolution (ADR) processes.

Key Points of the New Approach

This new approach makes use of a skilled, neutral third party, whose job is to create an environment conducive to an open discussion of the issues, to help participants better understand one another, and to help them develop a solution that will work for both parties. Meetings take place in an informal and confidential environment and participation is completely voluntary. This new approach is offered through the newly redesigned GSFC Alternative Dispute Resolution (ADR) Program.

Background

Launched on July 28, 2004, the GSFC ADR Program offers mediation, facilitation, and consultation for general workplace issues and works within the grievance and EEO Complaint processes.

Facilitation is useful in improving the flow of information in a meeting between parties who may be experiencing conflict. This process may be applied to decision-making meetings where a specific outcome is desired. Mediation, the foundation of the ADR Program, employs the use of a mediator (neutral third party) to help individuals in conflict reach resolution and help improve their working relationship. One of the best things about mediation is that the participants develop their own solution. The mediator has no decision making authority. While an employee does not give up their right to formal processes by participating in an ADR process, employees are still responsible for meeting the applicable timeframes stipulated for the formal processes. Additionally, each participant has the right to representation in mediation (e.g. attorney or union representation.

Who May Request ADR?

The ADR Program is open to non-bargaining unit employees, members of American Federation of Government Employees (AFGE), and Washington Area Metals Trade Council (WAMTC) for general workplace disputes (non-EEO), EEO complaints and grievances. The program is also available to members of the Goddard Engineers, Scientists and Technicians Association (GESTA) to help resolve EEO Complaints.

Who Are the Mediators and Facilitators and What Does Mediation Look Like?

Mediators and Facilitators are selected from several contract service providers and from the Federal Shared Neutrals Program operated by Health and Human Services, Departmental Appeals Board. To find out what a mediation session looks like, you may access the GSFC ADR website http://adr.gsfc.nasa.gov, click on "Links" and select "A Better Way," http://151.121.3.222:8080/ramgen/cprc/abw.rm.

Successes

Thus far, six ADR sessions have commenced. Supervisors have willingly participated and management strongly supports the use of ADR. At Goddard, the resolution rate and general success of ADR far exceeds the government-wide average of 82%. Issues have ranged from interpersonal communication issues (employee-to-employee and employee-to-supervisor), adverse actions, duty assignment and an informal EEO complaint. In addition, there have been five consultations. A vital part of the ADR program is education. Beginning in February 2004, NASA



Goddard provided ADR Training to supervisors and managers and continues to provide classes for new supervisors. This training will be offered to employees beginning June 20, 2005. In addition, Conflict Management Training was offered to employees in March with future classes scheduled for September, 2005.

To obtain further information, you may contact **Elly Cleaver**, ADR Program Manager at **(301) 286-0482** or visit the ADR website at **http://adr.gsfc.nasa.gov**. If you are experiencing conflict at work, plan to attend one of following training sessions in Bldg. 1, room E100D:

- ADR Training for Supervisors is being held on Tuesday, Sept. 20
- Conflict Management Training is being held on Tuesday, Sept. 27

iView: Easier Access to IFM

Would you like to get access to all your IFM applications by signing on to just one website? Would you like to view important IFM information all in one place? Would you like an easy way to track the status of personal travel? With a new tool called iView, you can do all of this and quite a bit more.

What is iView?

iView is an Agency initiated web-based, secure tool that the IFM Program is offering throughout the Agency. The tool is now available for use by Goddard employees.



iView will allow users to:

- Get access to all their IFM applications (CF, BW, Bankcard, TM, PDM, and Erasmus) by signing on to a single website. The portal "reads" and transfers single passwords from individual applications. NASA password protocol applies
- Get easy access to other applications such as WebTADS, Employee Express, and SOLAR
- NEW! Track status of travel authorizations and vouchers from start to finish
- NEW! Print boarding passes prior to flights
- NEW! Track status of an organization's travel funds
- Read key IFM communications in one central location
- Enjoy improved access to IFM information
- Take advantage of increased knowledge sharing opportunities

How to Get iView

You'll need an iView user ID and a password. Your iView user ID is the same as your x500 ID. To get your password, call the Huntsville IFM Help Desk at 1-866-427-4367 any time after 8 am EST. After that, just log on at https://iview.ifmp.nasa.gov.

A Short Demonstration

To see a preview of what iView has to offer before you obtain your password, visit http://ipo.ifmp.nasa.gov/iview/iview_demo.html.

Questions or Problems

Should you have questions or encounter difficulty with the iView functionality, please contact the Huntsville Help Desk at 1-866-427-4367. If you have any general questions about iView and how it could benefit you please contact Denise Davis, Goddard IFM Change lead, x 4-7072.

OTT Launches New Website

By Nancy Pekar

Goddard's Office of Technology Transfer (OTT) has put a new foot forward—electronically speaking—launching its newly redesigned Website: http://techtransfer.gsfc.nasa.gov. But this effort was not merely giving the old site a facelift.

"Our Website has two audiences: Goddard innovators and potential partners," said OTT Chief Nona Cheeks. Potential partners include those interested in a license or other spin-out of a Goddard technology as well as those who would like to work collaboratively with Goddard for dual-use development (spin-in). "We wanted to organize the information to best serve our internal and external audiences."



One section of OTT's new site is dedicated to Goddard researchers, emphasizing the importance of submitting New Technology Reports (NTRs). In addition to providing an overview of the tech transfer process, for which the NTR submission is the first step, OTT's Website provides a link to eNTRe, the electronic system for completing NTRs.

"We cannot stress enough how important it is to report new technologies," said Ms. Cheeks. "Yes, it's a requirement for all NASA staff, but it's so much more than that. You simply cannot have tech transfer without the NTR." Filing an NTR also makes innovators eligible for various awards, which are discussed in the "News and Events" section.

Also featured in the "Innovators" section are the researchers profiled in OTT's quarterly newsletter Goddard Tech Transfer News. These profiles provide an excellent opportunity to learn about Goddard colleagues and their experiences with OTT. OTT invites you to share your thoughts about the new Website. Send your comments to

techtransfer@gsfc.nasa.gov.

Ed Smylie

Great Moments in Engineering Award

Goddard retiree Robert E. "Ed" Smylie, Fairfield Glade, TN, who earlier served as head of the Crew Systems Division at the Johnson Space Center, recently accepted the first GlobalSpec Great Moments in Engineering Award at Space Center Houston, on behalf of his engineering team circa April 1970. The award honors a singular moment of engineering ingenuity (Apollo 13's CO2 air scrubber reconfiguration) which in some way led to continued advancements in technology.

Sunday, April 10th marked the 35th anniversary of Apollo 13's return to Earth after the aborted moon mission. It was crippled by an oxygen tank that overheated and exploded, raising concerns the carbon dioxide the astronauts expelled from their lungs as they breathed would eventually kill them. Two of Apollo's three fuel cells, a primary source of power, also were lost. It was obvious that without a solution the crew would run out of air before they could get back home.



Ed Smylie receiving award from John Schneiter, President of Globalspec.

Smylie said he was at home watching television when he learned there was a problem with Apollo 13. The famous call to mission control "Houston, we've had a problem," from astronaut Jack Swigert had been received earlier.

The astronauts had moved to the lunar module from the command module to conserve power for the emergency return to Earth. They had lithium hydroxide canisters to cleanse their spacecraft of carbon dioxide, but some of the backup square canisters were not compatible with the round openings in the lunar module. Smylie and other engineers put their heads together and soon had a proposed solution to retrofit the canisters.

Among the biggest concerns was whether the astronauts had duct tape, Smylie said. He later learned duct tape was commonly used on the spacecraft to clean filters and for other tasks. "I felt like we were home free," he said. "One thing a Southern boy will never say is, 'I don't think duct tape will fix it." Looking back, Smylie said, Apollo 13 turned out to be one of the space program's proudest moments. "What could have been a horrible disaster turned out to be a great achievement," he said.

Astronauts Jim Lovell, Fred Haise and Jack Swigert would have died without the engineers' quick thinking, said John Schneiter, president of GlobalSpec, the New York company that presented Smylie with the award.

Employee Spotlight



LaKeisha Tigner, Information Technology Specialist from code 297 can be seen jetting around the GSFC campus doing a multitude of things, but what she excels at is organizing people. LaKeisha is the chair for the Celebrate Goddard Committee and the Goddard Diversity Action Team, two very demanding roles that keep her

constantly busy. How does she keep it all together? "LaKeisha Tigner is a bundle of enthusiasm and energy! Her 'can do' attitude is contagious and she carries that spirit wherever she goes," says Julia Knight, co-worker and fellow organizer. "Her calm demeanor and ability to respect the needs of others make her a pleasure to work with... During her leadership of such events as 'Celebrate Goddard Day' she has always maintained a professional demeanor while dealing with numerous demands. Her calmness and assurance provide a positive influence on everyone with whom she's affiliated. When she says, "it will work," we know it will!"



When co-workers think of Michelle Jones, the first word that comes to mind is "dependability!" "Michelle is wonderful" says Keisha Tigner who has co-chaired Celebrate Goddard Day with Michelle for the past few years. "You can trust her to get things done." In addition to co-chairing Celebrate Goddard Day

and past Community Day events, Michelle works as a Special Events Coordinator in the Public Affairs Office, code 130 at GSFC where she most recently helped to head the Return to Flight Visitor Center activities which were attended by approximately 200 children and their chaperones/families. Although the shuttle event was scratched, Michelle remained calm making announcements through out the day about available activities and helping to direct the media. Trusilla Steele, Lead for Internal Communications, code 130 said "Michelle clearly demonstrates what outstanding teamwork is all about."